

Sarayut Eimjai 2007: Water Accounting in Ahangkhang Royal Project. Master of Engineering (Water Resources Engineering), Major Field: Water Resources Engineering, Department of Water Resources Engineering. Thesis Advisor: Associate Professor Kobkiat Phongphut, Ph.D. 121 pages

The objectives of this research were 1) to study water uses in various activities in Ahangkhang Royal Project 2) to study components of monthly Water Accounting in Ahangkhang Royal Project 3) to develop basic data for water management in Ahangkhang Royal Project 4) to evaluate water potential in Ahangkhang Royal Project.

Water Accounting Analysis is the Water Budget's objective factors analysis in Ahangkhang Royal Project which covered 26.94 km<sup>2</sup> in 2007 as follows: 2,184.55 mm. of yearly rainfall, 17.98°C of average temperatures and 66.85 % of average relative humidity. The Water Accounting Analysis is defined the studied areas into 2 areas (Domains) by the watershed line and then analyzed with the Principle of Water Accounting: inflow, depleted water and outflow. Finally, the related water accounting indexes are analyzed.

The results show that gross inflow in all domains is 59.12 MCM in rainy season, 2.55 MCM in dry season and 61.66 MCM in whole year. Net flow in rainy season is 123.16 MCM, dry season is 9.81 MCM and 132.96 MCM in whole year. Depleted water from the project area is 27.56 MCM. Outflow is 1.09 MCM in dry season, 26.18 MCM in rainy season and 27.27 MCM in total.

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Thesis Advisor's signature

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